

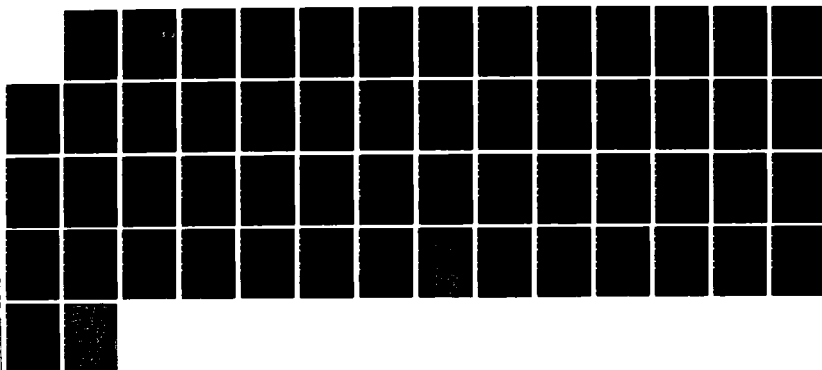
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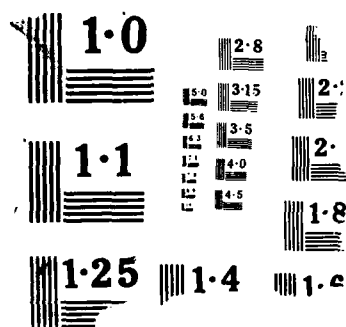
IN SEARCH OF JOINTNESS: THE AIR FORCE OFFICER AS
OPERATIONAL ARTIST(U) ARMY COMMAND AND GENERAL STAFF
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IN SEARCH OF JOINTNESS: The Air Force Officer
As Operational Artist

by

Major Terence L. Gilbert
U.S. Air Force

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School of Advanced Military Studies
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas

26 April 1988

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answer this question--at the operational level, should Air Force general officers serve as theater commanders?

Historically, most theater commands rotate in a preordained fashion among the Army, Navy, and the Marines. Notably absent from such positions are Air Force general officers. With few exceptions, Air Force officers appear to be precluded from command at the operational level. This monograph questions the logic of this arrangement and offers an alternate approach to the selection of theater commanders. The monograph begins with the development of a theoretical model or paradigm to describe the operational level of war and the concept of the commander as operational artist. It uses the ideas of Clausewitz and the U.S. Army's operational doctrine as stated in Field Manual 100-5, Operations, as a starting point and then further develops the model to illustrate key elements necessary for a commander to be operationally successful. The monograph then applies the model to an historical example--the Falklands War. The vast majority of combat operations for Argentina were conducted by its air forces; would sound operational planning and execution under an air force theater commander have led to victory for Argentina? The monograph analyzes the applicability of the Falklands experience to U.S. military forces and the issue of the Air Force commander as operational artist. The study concludes that the friendly center of gravity should dictate the selection of the commander within a theater of operations. In those cases where air assets constitute the source of strength (the "hub of all power and movement" for a military force), an Air Force general should be the operational commander.

IN SEARCH OF JOINTNESS: The Air Force Officer
As Operational Artist

by

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ABSTRACT

IN SEARCH OF JOINTNESS: The Air Force Officer As Operational Artist.
By Major Terence L. Gilbert, USAF, 48 pages.

In this age of modern warfare, joint operations are the rule and not the exception. In virtually any theater of war or theater of operations, it will take the coordinated efforts of two or more service components working jointly to accomplish the strategic goals of United States national policy. At the operational level, a theater commander employs joint military forces to attain objectives that lead directly to accomplishment of these strategic goals. The heart of his planning is the identification of the enemy's operational center of gravity, the source of his strength and power. Consequently, operational art for a theater commander involves the planning and execution of combat operations to destroy the enemy's center of gravity while preserving his own. These operations are synchronized into a series of battles and major operations that represents an overall campaign plan within a theater of operations. The selection of the theater commander and his skill as an "operational artist" conducting a campaign are major concerns of this monograph. Additionally, the ultimate aim of the paper is to answer this question--at the operational level, should Air Force general officers serve as theater commanders?

Historically, most theater commands rotate in a preordained fashion among the Army, Navy, and the Marines. Notably absent from such positions are Air Force general officers. With few exceptions, Air Force officers appear to be precluded from command at the operational level. This monograph questions the logic of this arrangement and offers an alternate approach to the selection of theater commanders. The monograph begins with the development of a theoretical model or paradigm to describe the operational level of war and the concept of the commander as operational artist. It uses the ideas of Clausewitz and the U.S. Army's operational doctrine as stated in Field Manual 100-5, Operations, as a starting point and then further develops the model to illustrate key elements necessary for a commander to be operationally successful. The monograph then applies the model to an historical example--the Falklands War. The vast majority of combat operations for Argentina were conducted by its air forces; would sound operational planning and execution under an air force theater commander have led to victory for Argentina? The monograph analyzes the applicability of the Falklands experience to U.S. military forces and the issue of the Air Force commander as operational artist. The study concludes that the friendly center of gravity should dictate the selection of the commander within a theater of operations. In those cases where air assets constitute the source of strength (the "hub of all power and movement" for a military force), an Air Force general should be the operational commander.

IN SEARCH OF JOINTNESS: The Air Force Officer
As Operational Commander

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SECTION I - INTRODUCTION

Clausewitz, often quoted--less often understood, described war as "merely the continuation of policy by other means."<1> While not the first military theorist to note the relationship between war and politics, he perhaps best articulated its meaning. In a letter to a close friend on the Prussian General Staff, he further elaborated his thinking:

War is nothing but the continuation of political efforts by other means. For me this idea forms the basis for all of strategy, and I believe that whoever refuses to recognize its necessary truth does not yet fully understand what really matters. This principle makes the history of war comprehensible; without it, war remains full of the greatest absurdities.<2>

Clausewitz gave military thinkers the framework to develop a "19th century" definition of strategy as the employment of military force to secure political objectives. Within this framework, tactics defined the process of execution--the art of translating military force into successful battles. Proper tactical execution led to a climatic battle that, if fought victoriously, resulted in winning the war.

Today wars are resolved rarely by fighting a single, decisive battle. In fact, the sequencing of successive battles and engagements to achieve strategic objectives is a vital part of any modern military conflict. Thus, we have seen in the 20th century the development of a different structure for modern warfare. Military strategy seeks to determine the proper employment of military means to obtain political ends. Successful tactics win the battles and engagements so vital to overall military victory. Tactics and strategy are tied together by the

proper sequencing of combat operations at an intermediate level defined as the "operational level of war."

The concept of an operational level of war developed in an evolutionary fashion. In the late 19th century, the Germans incorporated the term "operativ" to help define the structure of war. Members of the Russian General Staff, critical of their performance in the Russo-Japanese War and well aware of German writings on the subject, developed the concept of "operatsiia". As early as 1909, Lieutenant Colonel A. Neznamov presented public lectures on the nature of modern warfare and the impact of "operatsiia".<3> While the concept of an operational level of war has been evolving since the late 19th century, American interest in the subject has been intermittent and inconsistent. The one service to integrate operational thinking into its articulated military doctrine is the United States Army, in large part due to its reevaluation of operational experiences in World War II.

The most recent version of Field Manual 100-5, Operations, notes that U.S. Army doctrine "... distinguishes the operational level of war-- the design and conduct of campaigns and major operations--from the tactical level which deals with battles and engagements."<4> FM 100-5 also notes the need for commanders at the operational level to be proficient in "operational art" and observes that:

Successful strategy achieves national and alliance political aims at the lowest possible cost in lives and treasure. Operational art translates those aims into effective military operations and campaigns. Sound tactics win the battles and engagements which produce successful campaigns and operations.<5>

For the U.S. Army, operational art is "the employment of military forces to attain strategic goals in a theater of war or theater of

operations through the design, organization, and conduct of campaigns and major operations."<6> At the operational level, a commander becomes an "artist" who makes fundamental decisions about planning, resourcing, and executing combat operations to secure strategic objectives. Furthermore, the commander must consider his decisions from a joint (and, in those cases where more than one nation is involved, combined) perspective. The tool he uses to combine these disparate elements of combat power is the campaign plan. The selection of the theater commander and his skill as an "operational artist" conducting a campaign are major concerns of this monograph.

Historically, most U.S. theater commands rotate in an almost preordained fashion among the Army, Navy, and the Marines. Notably absent from such positions are Air Force general officers. With a few exceptions (Space Command, selected special operations task forces, etc.), the Air Force officer appears to be precluded from command at the operational level. Is there a sound military logic for this arrangement or is it simply an operational oversight? Under certain circumstances, would an Air Force general be the most qualified to serve in the role of theater commander? These questions will be addressed specifically in the course of this monograph. Finally, the ultimate aim of the paper is to answer this question--at the operational level, should Air Force general officers serve as theater commanders?

In developing the monograph, we first will create a theoretical paradigm to describe the operational level of war and the concept of the commander as operational artist. Lacking service unanimity in this area, a framework to describe these concepts is essential to the rest of the paper. Since the Army is the only U.S. service with an expressed

doctrine incorporating the operational level of war, its latest version of FM 100-5 will be used as a starting point. The paradigm must illustrate the key elements necessary for a commander to be operationally successful. Additionally, it must provide a standard for later use in evaluating whether or not U.S. Air Force officers would be better suited to command in certain situations. Having created a theoretical framework to understand the operational level of war, we will apply the framework to an historical example--the Falklands War. The vast majority of combat operations for Argentina were conducted by its air forces; would sound operational planning and execution under an Air Force theater commander have led to victory for Argentina? We then will analyze the applicability of the Falklands experience and our theoretical framework to possible scenarios involving U.S. military forces. Finally, the monograph will present some concluding observations and the implications for U.S. military doctrine.

SECTION II - DEVELOPING THE PARADIGM

The Operational Level of War

As we noted earlier, there exists a significant lack of doctrinal agreement within the U.S. military concerning the operational level of war. As a consequence, it is necessary to develop a theoretical model that provides a basis for examining combat operations at this level. Once structured, the model must provide a framework to answer several questions: Who commands at the operational level, where is his area of responsibility, what does he do and how does he do it? Before answering these questions, however, we need to review the structure of war as defined in FM 100-5.

The Army's basic fighting doctrine is known as "AirLand Battle." First documented in the 1982 version of FM 100-5, AirLand Battle is an integration of classic principles of war with current views on the nature of contemporary battle. Fundamental to AirLand Battle is the recognition that the structure of modern warfare is defined by three levels: strategic, operational, and tactical. Military strategy is the employment of military force to achieve national policy objectives. Tactics is the art by which smaller unit commanders translate potential combat power into victorious engagements and battles. The sequencing of battles and major operations to win a campaign defines the operational level of war; a victorious campaign leads directly to the achievement of strategic military objectives.<7>

The military leader responsible for translating strategic military objectives into finite, operational goals is the operational commander. Consequently, the operational level of command is a specific level with responsibility for the direction of combat operations beyond the immediate tactical battle. Exactly who is the operational commander has been the subject of much debate. FM 100-5 states that:

No particular echelon of command is solely or uniquely concerned with operational art, but theater commanders and their chief subordinates usually plan and direct campaigns. Army groups and armies normally design the major operations of a campaign. And corps and divisions normally execute those major ground operations.<8>

This statement by FM 100-5 acknowledges the fact that several different echelons of command may be "concerned" with fighting at the operational level. Certainly the corps commander participating in a major operation (a major phase of a campaign) is fighting at the operational level, but is he the operational commander? In most cases, the answer is no.

While he is concerned with the operational level of war, he is not the

commander who translates general military strategy into operational directives. Nor does he have command over all military assets within his geographic area of responsibility. Obviously his operations are of a joint nature; however, if he desires to command other service components within his area, he normally lacks the authority to do so. FM 100-5 stops short of acknowledging that there can be only one operational commander within an area of responsibility; only one "operational artist" who is responsible for establishing operational aims and then resourcing subordinate commanders to attain those aims. For the purposes of this paradigm, the operational commander/artist is a single individual commanding all joint/combined forces within a specified geographic area of responsibility and liable for translating generalized strategic guidance into specific operational objectives. He is the one man with both the authority and the responsibility for artistically coordinating the various elements of combat power at his disposal into a coherent harmony to achieve strategic goals.

Where is the operational commander's area of responsibility? It is defined first within a larger strategic theater of war, a geographic area (to include land, sea, and air) where the theater commander employs military means to attain political ends. The theater of war commander articulates how this is done in a war plan which provides general guidance to the operational commander on the employment of his military forces. Theaters of operations exist within the overall theater of war; a theater of operations defines a geographic area (it also may include land, sea, and air) assigned to the operational commander to conduct his campaign. A theater of war may contain several theaters of operations or only one. Regardless, the theater of operations outlines a defined

area of the world within which the commander synchronizes the efforts of his military forces to achieve operational aims. To illustrate this issue, consider the existing structure of allied forces in Europe. According to this paradigm, Allied Command Europe (ACE) would assume responsibility for all military operations in continental Europe as the commander of a theater of war. ACE further subdivides his area of responsibility into three theaters of operations: Allied Forces Northern Europe (AFNORTH), Allied Forces Central Europe (AFCENT), and Allied Forces Southern Europe (AFSOUTH). As the theater of war commander, ACE would translate policy objectives of the North Atlantic Treaty Organization (NATO) into strategic military objectives. Strategic guidance to his operational commanders is provided via war plans; this is done in NATO today by publishing the General Defense Plans (GDPs). Based on the guidance provided by ACE, commanders in the three theaters of operations would develop campaign plans to pursue the strategic objectives of their commander.

Operational Art

Having established who commands at the operational level and where he commands, precisely what does an operational commander do? Again, FM 100-5 provides a starting point. The operational commander practices operational art! Through the design, organization, and conduct of campaigns, the operational commander creates a series of combat operations designed to attain a strategic objective.<9> What the operational commander does is plan and execute campaigns; how he does it is an equally important question.

Given that campaign plans seek to achieve strategic military objectives within an overall theater of war, it follows that a campaign plan is a long-term program that usually must be accomplished in

phases. Normally the plan provides a general concept of operations for all phases of the campaign and more specific guidance for the first phase. Since the operational commander is responsible for all military action within his theater of operations, his organization is, of necessity, a joint command (and, in some instances, combined). The developed campaign plan must encompass a coordinated land and air effort that ensures unity of effort within the theater. In the event that naval forces are present, their activities also must be integrated.<10>

According to FM 100-5, operational art requires the commander to address three questions: How does the commander define victory, how does he sequence his military actions to produce victory, and how does he allocate the resources of his command to accomplish that sequence?<11> Thus, campaign planning by the operational artist must begin with a definition of victory--what is the desired outcome of the campaign? For example, by the end of military operations, should his forces control a particular geographic area or should they have destroyed the enemy force within the theater? Once the operational commander has a clear vision of the desired "end state" of his campaign, he can proceed to the next question--how does he sequence his actions?

In a broader context, the question of sequencing is part of the overall problem of deciding how to defeat the enemy. FM 100-5 details a number of general ways to defeat a large force within a theater, but warns that the method selected must be effective. It goes on to say that:

An effective campaign plan orients on what Clausewitz called the enemy's "centers of gravity," his sources of physical strength or psychological balance. If such a

center of gravity is attacked (or occasionally merely threatened), the enemy's position becomes untenable.<12>

Clausewitz' concept of a center of gravity developed from earlier discussions on the employment of force within a theater. Recognizing the need to mass military strength at a decisive time and place, he wrote in On War, "... there is no higher and simpler law of strategy than that of keeping one's forces concentrated."<13> The act of concentrating also produces another effect, the creation of centers of gravity. In Clausewitz' words, "A center of gravity is always found where the mass is concentrated most densely. It presents the most effective target for a blow; furthermore, the heaviest blow is that struck by the center of gravity."<14> Clausewitz' ideas incorporated into the doctrine of FM 100-5 lead to several conclusions. First, operational art must include the concept of concentrating combat power to achieve victory. Second, the massing of combat power creates centers of gravity in both friendly and enemy forces. Finally, the operational artist must identify both the enemy and friendly centers of gravity and determine a decisive point (a finite time and place where combat forces are massed) to destroy the enemy's center of gravity while preserving his own.

Unfortunately, identifying a center of gravity proves to be more easily said than done. Again, we can turn to Clausewitz for further explanation. Having described how a center of gravity can develop from the decisive massing of military forces, he then said, "Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."<15> It is apparent that Clausewitz viewed the center of gravity as a source of strength, a

concentration of military power. FM 100-5, in an attempt to recognize that centers of gravity may exist for all three levels of war, tends to confuse Clausewitz' logic by arguing that the "psychological balance" of the enemy may be a center of gravity. Those who support this view use the United States' experience in Vietnam as a prime example of a psychological or political center of gravity (U.S. resolve to continue the war) being attacked by another nation. The argument certainly may be valid at the strategic level; however, at the operational level, campaign planning must target a significant enemy force as the center of gravity to be destroyed in battle. Failing to do so may lead the operational commander to view the center of gravity in other than military terms or, equally wrongly, to view the center of gravity as an enemy vulnerability rather than a strength.

One additional problem remains with FM 100-5 and its interpretation of military centers of gravity. The center of gravity concept has developed primarily with a ground force orientation. This orientation certainly is understandable since the idea is derived from the writings of Clausewitz who viewed war from a strictly continental viewpoint. He professed little interest in naval affairs and combat aviation did not even exist in his day. FM 100-5 itself is an Army document and not meant to be a joint manual incorporating some sort of unified military doctrine. Nevertheless, the concept of centers of gravity must include a joint perspective for this paradigm to be valid at the operational level.

Accepting Clausewitz' argument that massing combat power creates centers of gravity, how does his concept translate to the use of air and naval power? Alfred Thayer Mahan, the U.S. Navy's principal architect of modern naval strategy, consistently argued that naval power must be

employed by massing at a decisive point to destroy the enemy fleet. Insisting that concentration was the predominant principle of naval warfare, he said, "Like the A, B of the Greeks, which gave its name to the whole of their alphabet and ours, concentration sums up in itself all the other factors, the entire alphabet, of military efficiency in war."<16> Air Force Manual 1-1, Basic Aerospace Doctrine of the U.S. Air Force, also discusses the principle of mass and states that, "... aerospace forces possess the ability to concentrate enormous decisive striking power upon selected targets when and where it is needed most."<17> Both services continue to acknowledge the need to mass their combat power for decisive results. Consequently, it is logical to expect that the massing of air or naval power creates centers of gravity in the same sense that ground forces have centers of gravity. The operational commander must analyze all elements of a military force to include air, land, and naval components as he attempts to identify a center of gravity within his theater of operations. It is important to note that the operational commander still must identify a single center of gravity at the operational level. For a commander to seek multiple centers of gravity based on the variety of different combat forces within his theater would lead him to disperse his own combat power rather than mass for a decisive impact.

Clearly the center of gravity can change in the course of a campaign for a number of different reasons. Such changes may require the operational commander to modify his own campaign plan in what FM 100-5 defines as "branches" and "sequels." The ability of a commander to anticipate shifts in operational direction becomes a critical part of operational art. This anticipation or vision enables the operational commander to develop the planned sequence of combat operations that

leads to a victorious campaign. Branches to the plan--options for changing the operational direction of a campaign--allow the commander to maintain freedom of action; sequels--the next action after a battle--help him prepare for future military operations.<18>

As the operational commander defines the desired outcome of his campaign and the sequence of combat operations necessary to produce that outcome, he also decides how to resource the plan. The commander must allocate sufficient combat power to his subordinate commands to assure their success while maintaining control of an appropriate level of assets at his level to allow his own operational flexibility. Given the limited amount of resources available to the operational commander, he is forced into a difficult quandary. He must constantly balance the conflicting demands of his subordinate commanders with his own requirements for operational assets. To help in his decision-making, the commander must analyze his need to maintain forces for operational maneuver and operational fires. FM 100-5 defines operational maneuver as seeking "... a decisive impact on the conduct of a campaign."<19> Such maneuver attempts to gain a positional advantage before battle and, once the fight has started, to exploit tactical success to attain operational results. Equally important, fires are considered operational when they achieve a decisive impact on the course of the campaign. As observed earlier, theater air forces provide the operational commander a unique opportunity to mass for decisive effect. Additionally, as surface delivery systems improve in range, lethality, and accuracy, they also become more important at the operational level. During both the planning and execution of the campaign, the operational commander must consider how best to utilize his available resources to obtain decisive impact and then allocate them to the appropriate units.

The resourcing decision must consider one final aspect--the culminating point. FM 100-5 developed the concept of the culminating point from Clausewitz' theory of war. The manual states, "... every offensive operation will sooner or later reach a point where the strength of the attacker no longer significantly exceeds that of the defender, and beyond which continued offensive operations therefore risk ... defeat."<20> This point is defined as the offensive culminating point; the operational artist in the attack seeks to achieve victory prior to reaching his culminating point; in the defense, he looks to hasten the enemy's culminating point and then go to the offense himself. A clear understanding of the concept and its application to the resource problem is an important part of the planning and execution of the commander's campaign plan.

Our paradigm now is complete. We have developed a theoretical framework that defines who the operational commander is, where he operates, what he does, and how he does it. The concept of an operational commander as operational artist centers around his identification and destruction of the enemy's center of gravity while protecting his own. It involves creative decisions concerning the desired "end state" of a campaign, the sequencing of military actions to achieve the end state, and the resourcing of combat assets to accomplish that sequence.

The purpose of a theoretical paradigm is to offer a possible model that helps explain an event or phenomenon. It also provides a standard to evaluate the performance of participants in the event. Having created a model for operational art, now we will review the historical framework of the Falklands War and use our paradigm both to explain and evaluate Argentina's participation in the conflict.

SECTION III - WAR IN THE FALKLANDS

Historical Background

In their book, The Battle for the Falklands, Max Hastings and Simon Jenkins wrote, "The Falkland Islands' misfortune has always been to be wanted more than they are loved."<21> Windy, cold, and barren, the islands officially are a self-governing colony under the British crown. However the issue of sovereignty has been challenged for over 200 years, first by Spain and later by Argentina.<22> In 1833 a British landing party forcibly expelled Argentine colonists from the islands they claimed as Las Islas Malvinas.<23> Since that time, the British have maintained possession of the Falklands while Argentina continued to claim its right to sovereignty.

Following the end of the Second World War, Argentina and Great Britain seemed committed to policies that, in retrospect, guaranteed conflict over the islands. Argentine nationalism matched with British reluctance to negotiate seriously created a volatile combination. Interest in the islands flared dramatically in 1964 when Argentina turned to the United Nations for a resolution to the issue of Las Malvinas. Suffering a major setback after the recent declaration of independence by Rhodesia, Britain found itself vulnerable to the whims of international opinion. When the General Assembly passed a resolution calling on Britain and Argentina to "proceed without delay . . . to finding a peaceful solution to the problem," negotiations finally commenced.<24>

Unfortunately, the islanders themselves were a major stumbling block to the negotiations. After the British representative

to the U.N. declared that "the interests of the inhabitants of these territories are paramount," native Falklanders made it clear they wished to remain a British dependency.<25> Unable to resolve the conflicting demands of the Falklanders and the Argentine government, diplomatic negotiations proved inconclusive. However, in December of 1981, the rise of Argentina's new military junta headed by Army General Leopold Galtieri provided a fresh impetus to the stalemate.

Events Leading to Invasion

Although Galtieri served as president and commander-in-chief, the actual political power of the government rested in the junta (composed of the top commanders of the three armed services). No major decision could be made without the consensus of its members which included Galtieri, the Navy's Admiral Jorge Anaya, and the Air Force's General Basilio Lami Dozo. The triumvirate needed an early success to gain the confidence of the country. Argentina's economy was devastated by an inflation rate of 150 percent and the political impact of the "dirty war" to defeat internal terrorism was weighing heavily. Galtieri's position was especially vulnerable and he needed a spectacular achievement to divert the attention of the people from his many problems. That December, after consulting with Anaya, he decided that the Malvinas would be returned to Argentina by the end of 1982.<26>

The political maneuvering over the islands reached a climax in March of 1982 when an Argentine salvage operation landed on South Georgia Island. About eight hundred miles southeast of the Falklands, the island is a direct dependency of Great Britain and not part of the Falklands themselves. However, Argentina viewed South Georgia as a part of the larger issue of sovereignty over the Malvinas and, according to

some sources, had considered invading in 1977.<27> Informed almost immediately of the landing, British authorities claimed the salvagers had not received legal permission to enter the island and took steps to end the operation. HMS Endurance, an ice patrol ship, departed Port Stanley with 22 Royal Marines on board to remove the "illegals" from the island--by force if necessary. About four hours from the landing site, the Endurance changed course to the nearby port of Grytviken and waited for further instructions from London. Meanwhile, the Argentines landed over 100 troops to "protect" their citizens from the menace of British forces.<28> In a postwar interview with Italian journalist Oriana Fallaci, Galtieri stated that Britain's threat to remove the salvage personnel from South Georgia prompted the invasion of the Falklands.<29> Today it is apparent that Galtieri considered the South Georgia incident sufficient excuse to initiate his grand plan of reclaiming Las Malvinas.

The Argentine Plan

While the situation on South Georgia was the catalyst for invading the Falkland Islands, Galtieri had been planning the reconquest for some time. Within weeks of his assuming power, old invasion plans developed by the navy were revised and prepared for implementation between July and October of 1982.<30> By that time, a British naval response would be unlikely. The winter weather made naval operations highly impractical and the continuing phase out of British combat vessels would have reduced even further their capability to respond to Argentina's action. Additionally, the Argentine Navy's acquisition of new Super Entendard aircraft and Exocet air-to-surface missiles would be complete and the ground forces necessary for the invasion trained and

ready. Unfortunately, the unanticipated events in South Georgia combined with a deteriorating domestic situation made an immediate invasion imperative for the junta. Furthermore, the three leaders simply refused to believe that Great Britain would respond by force to the takeover of the Falklands. This gross miscalculation of British resolve would have a serious impact on the forthcoming conflict.<31>

On the 26th of March, the junta directed Vice Admiral Juan Jose Lombardo, commander of the South Atlantic Theater of Operations, to execute Operation ROSARIO, the retaking of Las Malvinas.<32> Five ships of the Argentine Navy put to sea on the 29th of March, supposedly part of a naval exercise with Uruguay. They were, in fact, the first components of two naval task forces assembling for the upcoming invasion. Amphibious Task Force 40 included the tank landing ship (LST) Cabo San Antonio loaded with the Second Marine Battalion. Comprising a 700-man landing force, their mission would be to capture Port Stanley and its associated Royal Marine garrison (a total of about 80 military personnel). Task Force 20 would support the amphibious landings and included the aircraft carrier Veinticinco de Mayo with eight A-4 Skyhawk attack aircraft.<33> At 0615, 2 April, the main elements of the the landing force started to come ashore at Port Stanley; by 0915, the governor of the islands surrendered and the Argentine Air Force began flying in reinforcements to replace the landing force. The next day a second landing force captured the Royal Marines still at Grytviken and consolidated their hold on South Georgia. Operation ROSARIO, in the view of the Argentine military, now was complete. Still believing the British would not execute a military response, Argentina's leaders saw little need to plan for subsequent operations within the theater.<34>

The members of the junta clearly were surprised by the actions of Prime Minister Margaret Thatcher and her government. Certain that Britain would not take a military response, they were shocked to learn of the sizeable task force preparing to sail south. Lacking any firm plans to meet this new contingency, the Argentines were forced into a reactive decision cycle. Almost immediately, the Argentine Air Force started flying additional troops into Port Stanley (now renamed Puerto Argentino). While forces in the Falklands eventually would total over 10,000 personnel, ground commanders failed to develop plans to effectively employ these troops. Furthermore, army leaders chose to split these ground units between the two main islands rather than concentrate for a decisive battle on East Falkland. Many of these reinforcements were conscripts with extremely low experience levels and, to further complicate things, the additional troops received only limited logistics augmentation. Key assets such as heavy artillery and helicopters to improve the firepower and mobility of the defending troops simply were not considered. Concepts for lengthening the existing airfield at Port Stanley were discarded as impractical. Interestingly, the British improved the airfield for use by F-4 fighter-bombers within weeks of occupying the islands. While the buildup marginally improved the combat posture of Argentine forces, its primary purpose was to force the British to spend additional time reinforcing their own task force prior to sailing. This would allow the Argentine government more time to negotiate, hoping for a diplomatic solution to what was clearly a military problem.<35>

The British Response

While Argentine leaders hoped for a diplomatic resolution to the Malvinas situation, the British government prepared to pursue its

politics in the Clausewitzian sense. On the 5th of April, the lead elements of the British task force, including the aircraft carriers HMS Hermes and HMS Invincible, set sail for the South Atlantic. Two days later, Britain declared a 200 nautical mile exclusion zone around the Falklands which would be effective on the 12th. By that date, several British submarines would be in the area policing the zone.<36>

As the task force steamed south, plans were made for the recapture of both South Georgia and the Falklands. The British obviously faced some severe problems of their own, not the least of which was how to support logistically an amphibious operation 8,000 miles away from its home port. Additionally, the traditional need for air and sea superiority prior to the landings was offset by the task force's considerable tactical limitations.

Rear Admiral Woodward, the task force commander, believed the key to success would rest squarely on his two aircraft carriers and their twenty Sea Harrier fighter aircraft.<37> He felt the Harriers must establish air superiority for his task force to survive within the exclusionary zone and conduct a successful amphibious landing. The Sea Harrier is a vertical short takeoff and landing aircraft and highly maneuverable in air-to-air combat. Unfortunately, the limited numbers and short patrol ranges (approximately 100 miles for a 1 and 1/2 hour mission) meant the British aircraft might be overwhelmed by the numerical advantage of Argentine air forces.<38> The Argentines possessed over one hundred fighter aircraft capable of ranging the Falklands from bases on the mainland. These included the A-4 Skyhawk attack aircraft, the French-built Mirage III fighter-bomber, and the Dagger fighter-bomber, an Israeli version of another Mirage-type

fighter.<39> While the British hoped to offset some of the Argentine advantage through an effective air defense net, most British naval vessels possessed only limited air defense capabilities and the fleet as a whole lacked an effective early warning system. Operations close to shore, such as those to support the amphibious landing, degraded air defense capabilities even further.<40> Finally, the ever present high winds, rough seas, and low cloud cover made naval operations extremely risky; the soon to be expected arrival of winter meant even worse conditions.<41>

Admiral Woodward received three simple directives from London. Retake the islands, minimize casualties, and do not attack the Argentine mainland.<42> The British fleet's first objective would be South Georgia Island; it then would redirect its efforts to the Falklands. On the 21st of April, an Argentine Boeing 707 on a surveillance mission located the British force 200 miles offshore of South Georgia. It was chased away by Harriers from HMS Hermes; the incident marked the first contact between the belligerents. The next day, British operations to retake South Georgia commenced in earnest. On the 25th, Argentine troops on the island surrendered to British landing parties and Great Britain had its first victory. The British fleet now sailed for the Falklands.<43>

On 27 April, the Argentine Navy put to sea once more and prepared to counter a British attack on either the Malvinas or the Argentine mainland. By the 30th of April, the fleet, split into three task groups, occupied stations north-northeast and southwest of the islands.<44> At 0440, 1 May, a British Vulcan bomber delivered twenty-one 1,000 pound bombs on the runway at Port Stanley; Harriers then followed up the attack with raids on both Port Stanley and Goose

Green.<45> During the entire conflict the only bomb to hit the runway at Port Stanley was from this Vulcan attack; Argentine antiaircraft fire proved very effective in countering subsequent British air raids.<46> In response to the attacks, Admiral Lombardo committed the Argentine fleet east hoping to distract the British from what he perceived as preparations for a landing that day. By bringing in one task group with the Veintecinco de Mayo from the north and a second task group with the cruiser General Belgrano from the south, the result would be a pincer attack on the British task force to draw it away from the expected landing area. As the aircraft carrier prepared to launch its A-4s in an attack on the British fleet, the winds became too light and the launch was aborted. Lombardo promptly recalled the two task groups once he realized the chances of launching an attack were slim and the British had not landed as expected. In the process of withdrawing, the General Belgrano was torpedoed and sunk by the British submarine Conqueror.<47>

The sinking of the Belgrano had enormous implications. Since the actual attack occurred outside the exclusionary zone previously established by the British, a worldwide debate ensued over the ethics of the act. Furthermore, the sinking virtually guaranteed that no diplomatic solution would be acceptable to either side. Most important, from a military viewpoint, the incident led Argentina to withdraw its fleet to secure coastal waters and wait out the rest of the war. While the Navy's Skyhawks and Super Entendards continued the fight from mainland bases, its warships would not sail again. The brunt of the fighting now would be borne by Argentina's air arm, both naval and air force.<48>

On the 4th of May, Argentina scored its first aerial success. Two Super Entendards attacked the British task force, firing two Exocet

missiles at separate targets. One missile missed its target, but the second struck HMS Sheffield performing radar picket duty for the rest of the fleet. The ensuing fire could not be contained and the ship was abandoned about five hours after the initial attack. The Argentine attack was not without cost. Having fired two Exocet missiles, they only had three remaining in their inventory with no option to resupply the losses.<49> Nevertheless, the attack on the Sheffield demonstrated the resolve of the Argentines to carry the air war to the British. Unfortunately, poor weather limited both Argentine and British air operations for most of the next two and a half weeks. By that time, Britain's logistics buildup was sufficient to begin amphibious operations on the Falklands themselves.

The ultimate objective of any amphibious landing would be the capture of Port Stanley. British planners considered three basic alternatives for the Falkland landings: Land well clear of the Port Stanley area for an unopposed landing, land on or near Port Stanley to allow an immediate attack of the area, or compromise between the two extremes by landing at an intermediate position. The British command finally decided to land at San Carlos as a compromise; it was close enough to facilitate a fairly quick advance on Port Stanley, but distant enough not to be opposed immediately by Argentine ground forces.<50>

Early in the morning of 21 May, lead elements of British 3rd Commando Brigade landed at San Carlos with minimal resistance from Argentine ground units. While the Argentine ground threat was negligible, air force and navy aircraft attacked the landing site throughout the daylight hours. By the end of the first day, the frigate HMS Ardent was sunk and four other warships were seriously damaged.<51>

The task force had paid heavily for the inability of the Sea Harriers to gain complete air superiority over the landing area. However Argentina suffered as well, losing twelve aircraft and three helicopters the first day. The Argentine failure to upgrade the Port Stanley airfield and the decision to withdraw the Veintecinco de Mayo meant that missions against the task force were flown from mainland bases over 400 miles away. At the limit of their combat range and lacking the fuel to engage in air combat against the Harriers, the Argentine airmen ignored the air threat and concentrated on attacking British warships. Consequently, they were extremely vulnerable to the Harriers protecting the task force; the Harriers accounted for thirteen of the fifteen first day losses.<52>

Perhaps evaluating the cost of the air effort, Argentine air attacks on the 22nd were limited to a pair of A-4 Skyhawks with no success. The British took full advantage of the lull to bring ashore additional equipment and supplies as well as establish a ground-based air defense system with Rapier missiles. By sunset, over 5,000 British troops now occupied a ten square mile beachhead.<53> The next day, the air effort resumed with a vengeance. By the 28th, Argentine air attacks accounted for the sinking of the warships Antelope and Coventry. In addition, the Atlantic Conveyor was hit and subsequently abandoned after an attack by two Super Entendards using Exocet missiles. The loss of the ship, a major transport vessel, threatened the logistics of the entire British campaign. Argentine losses also continued to be heavy. In the same period, almost twenty aircraft and helicopters were lost in combat; again, the vast majority to the Harriers.<54>

Confused by the inaction of Argentine ground forces, British commanders soon realized they had not fully considered the subsequent

land operations required to take Port Stanley. After establishing the beachhead at San Carlos, they lacked an answer to the question--"what's next?" Anxious for a military victory, the British finally decided on 29 May to seize Goose Green and Darwin. While of little value to the overall campaign, the subsequent capture of over 1,000 Argentine troops by the outnumbered British 2nd Parachute Battalion was a tremendous boost to the morale of the task force. It clearly revealed the deficiencies of the Argentine defense as well. Lacking tactical mobility, the Argentine army units elected to remain in defensive strongpoints rather than deploy forward against the British. Once in contact, however, the Argentine troops simply did not have the will to fight even from reinforced defensive positions. The main effort for Argentina would continue to be its air arm.<55>

As 2nd Para advanced on Goose Green, British 3rd Parachute Battalion and two commando battalions advanced on Mount Kent in the northern half of East Falkland Island. Their objective was to seize forward positions near Port Stanley as the northern part of a two pronged attack to capture the town and garrison. 5th Brigade, recently arrived in the islands, would form the southern prong in conjunction with 2nd Para. Recognizing the difficulty of moving across the island terrain, the British decided to employ 5th Brigade in an amphibious assault at Fitzroy and Bluff Cove.<56> While considerably nearer to Port Stanley, the landings were conducted without air and sea support in order to avoid losing more naval warships. Free of the usual ground and air threats, Argentine aircraft attacked two transports, the Tristan and the Galahad, with devastating results. In the course of the attacks, fifty-one men were killed and forty-six injured; it was the worst single loss for British forces during the war.<57> Despite these losses, the

British now were in position for the final assault on Port Stanley. On the 11th of June they commenced night attacks to seize the high ground surrounding Port Stanley. While possessing a substantial advantage in numbers, the Argentine defense was sporadic at best. On the morning of the 14th, General Menendez, the Argentine ground commander, surrendered all forces on East and West Falkland Islands. In all, the British captured over 11,000 prisoners in a stunning conclusion to the Falklands War.<58>

The Aftermath

By the end of the war, victory had cost the British 255 men killed and 777 wounded. Argentina estimated its losses at 652 men dead or missing, in addition to the thousands of prisoners and tons of materiel and equipment captured by the British.<59> Estimates of Argentine air losses varied considerably. Of the fleet of Skyhawks, Mirages, and Daggers (approximately 105 aircraft) that attacked the British task force, one unclassified source estimates the Argentines lost 35 aircraft for a combat attrition rate of over 30 percent. Of the 35 lost in combat, 16 were shot down by Harriers equipped with the extremely capable AIM-9L air-to-air missile.<60> The British lost ten Harriers during operations in the South Atlantic; no aircraft were lost in air-to-air combat.<61> For their efforts, the Argentines sank six ships, damaged ten, and claimed seven more as probably damaged.<62> The Argentines experienced tremendous problems with unexploded ordnance; some sources estimate that three-quarters of the bombs dropped failed to detonate.<63> Attempting to fly below the gun and missile defenses of the naval ships, pilots apparently released their ordnance with insufficient altitude to arm prior to impact. As late as 8 June, arming problems continued as illustrated by the attack on HMS Plymouth; the

ship sustained four direct hits but no bombs detonated.<64> Better weapons effectiveness might have altered the outcome of the war significantly. Devoting the lion's share of the air effort to destroying the British fleet, Argentine air support of ground forces at best was minimal. Some ground attack aircraft, including the Argentine-built Pucara and the Italian-built Aeromacchi 339, were based on the islands themselves, but many of these were destroyed in British commando raids and the remainder were ineffectually employed.<65> While Argentine tactical air support was limited, efforts to conduct aerial resupply of the main garrison at Port Stanley were considerably more effective. C-130 Hercules, Electra, and Fokker transport aircraft flew sixty sorties into the Falklands after the 1 May airstrikes; the last sortie was flown on the 14th of June as the garrison prepared to surrender.<66> During the resupply effort, the Air Force delivered 435 tons of cargo and evacuated 264 wounded men.<67> Despite these impressive and courageous efforts, the fact remains that Argentine air failed to secure a victory for its nation. Clearly the air effort suffered from a number of tactical deficiencies, but British forces certainly faced their share of problems as well. Despite significant shortcomings, the British were able to overcome their difficulties and win the war. While recognizing that the Argentine military faced certain tactical limitations, could sound operational planning and execution have led to victory for Argentina?

SECTION IV - ANALYSIS

In hindsight, it often seems easy to devise the perfect solution to a lost battle. It is not the intention of this monograph to "second

guess" Argentina's military performance in the Falklands, but to apply the operational paradigm we have developed to its participation in the war. If the paradigm has any validity, it will provide insights that might have led to operational success for Argentina in this tragic conflict. After using the paradigm to analyze the Falklands War, we then will consider its applicability to U.S. military operations.

Applying the Paradigm

The situation in Argentina clearly involved unique circumstances. The articulation of national policy and the translation of that policy into military strategy occurred within one body--the junta. Much like Napoleon Bonaparte in the early 19th century, the junta represented both the top political and military power in the country. The operational result of the junta's strategy was Operation ROSARIO, a campaign plan to retake Las Malvinas. In this case, there would be only one theater of operations, the South Atlantic Theater of Operations. Admiral Lombardo, with the authority to direct all military action within the theater, would be Argentina's "operational artist" executing the campaign. Despite the unusual circumstance of a junta directing the war, the structure of Argentine's military appears to fit our paradigm very well. Unfortunately, Lombardo's finalized campaign plan lacked a key ingredient--operational vision.

What was lacking in the Argentine approach to planning and executing this campaign was a clear vision of the "end state" and how to get there. Operation ROSARIO obviously should not have meant the end of combat operations in the South Atlantic theater. However Admiral Lombardo and his higher command failed to understand this key point and saw no need to develop a "branch" or contingency to the basic plan.

Argentina's military leaders believed the successful conclusion of their campaign to retake the islands presumed an end to the overall conflict. Operation ROSARIO's fatal flaw was its failure to anticipate a British military response to the Argentine invasion.

When developing our operational paradigm, we learned that the ability of a commander to anticipate shifts in operational direction is a critical aspect of operational art. In the case of Operation ROSARIO, Lombardo and his staff needed to develop a branch to the basic plan that anticipated the introduction of British military forces into the theater. With a contingency plan, the Argentines would have avoided the hasty planning cycle they eventually faced in early April as British ships prepared to sail south. While recognizing the need for a contingency plan is crucial, it is only a first step. Next we need to ask how the Argentines might have developed such a plan.

Again, our paradigm provides a starting point by asking the operational artist to reexamine three key questions: What is victory, how do you sequence operations to achieve victory, and how do you allocate resources to facilitate the sequence. In this contingency, victory for Argentina still is defined as maintaining possession of the islands. How do we sequence air, naval, and ground operations to achieve victory? To ease the problem of sequencing, the contingency should be a phased operation. The first phase would outline Argentine actions as the British task force deployed south and then employed its forces to gain air and sea superiority prior to amphibious operations. The second phase would plan to counter British landings on the Falklands and subsequent ground battles. Having broadly outlined the concept of

operations, the key to sequencing military action then lies in determining the enemy and friendly centers of gravity. In retrospect, it is apparent that the two aircraft carriers Hermes and Invincible represented the British center of gravity prior to the amphibious landings. In a recent article on the Falklands conflict, Lieutenant Colonel Lawrence Izzo observed that, "Only the carriers could win for the British. Without these carriers, and the air power they were capable of projecting, there could be no possibility of protecting the task force and attempting the amphibious landing."<68> Admiral Woodward's previous statements on the importance of the carriers to his task force clearly reinforce this view of the Hermes and Invincible representing "the hub of all power and movement" during the first phase. Lt. Colonel Izzo goes on to say that, once ashore, the task force's center of gravity shifted to the British brigades tasked to capture Port Stanley.<69> Realizing that Britain's political goal was to retake the Falklands, any naval task force had to project combat power ashore to seize and hold the territory in question. Once British forces began landing on the islands, these forces would constitute a new center of gravity for the second phase of operations. Argentina would have to defeat that force in order to win the campaign. Therefore, an Argentine contingency plan would target the aircraft carriers in the first phase and the landing forces in the second. To execute these attacks, the Argentine plan next must identify the friendly centers of gravity for these two phases.

Prior to the outbreak of hostilities, Admiral Lombardo needed to determine his own source of strength and how he would direct it against the British. Again, looking at the campaign in hindsight, it is clear

that the Argentine center of gravity shifted from phase to phase. With the intentional withdrawal of the Argentine fleet, the defense of the Falklands rested entirely on Argentine air assets. Air power represented the source of Argentina's military strength prior to the amphibious landings. Once the British were ashore air power could continue to influence the battle, but only Argentine ground forces could hold the key terrain at Port Stanley. Just as the British center of gravity shifted to its ground forces, the Argentine center shifted to its ground units tasked to defend Port Stanley. Assuming the same decision would have been made to withdraw the navy, the contingency plan would need to sequence and resource air operations in the first phase of the campaign and shift attention to the ground units at Port Stanley in the second phase. Obviously a decision to employ the Argentine fleet in combat operations against the British task force would alter significantly the development of the contingency. The whole idea of "branches and sequels" at the operational level is to recognize the impact of these decisions prior to actually employing combat forces.

Assuming a decision to minimize fleet involvement, the operational commander first would take steps to enhance the effectiveness of his air operations. Top priority would be given to improving the airfield at Port Stanley. While airfields existed at Goose Green and Pebble Island, they were unimproved strips incapable of being rapidly upgraded. Time being critical, all efforts would be concentrated on improving Port Stanley's facilities. As we saw earlier, the British proved it was possible to quickly upgrade the runway. The ability to use the airfield at Port Stanley would increase dramatically the combat range of the Argentine fighters while avoiding undue exposure to the British air

threat (despite repeated attacks, the British never succeeded in closing the airfield during the actual campaign). To help protect the air center of gravity, Argentina would continue to use mainland bases in addition to the Port Stanley airfield in order to disperse the aircraft critical to phase one operations. Sound planning also would integrate air force and navy radar facilities to allow the early detection and tracking of key British warships, in particular the two carriers. Such cooperation between the two services was notably absent in the actual combat operations conducted by Argentina.<70> Acquisition of additional ordnance to improve the tactical capabilities of the aircraft would be a major part of the resourcing decisions supporting this contingency. Simply acquiring more external fuel tanks to improve the combat ranges of Argentine fighters and bombs equipped with "high drag" retardant fins for use at low altitude would improve the flexibility of Argentine air dramatically. If time and the political situation allowed, the stockpiling of additional Exocets and improved air-to-air missiles would be of vital importance.

Realizing that British success depended on the employment of the two carriers, Lombardo's plan would hinge on a major air operation specifically aimed at destroying the carriers and their aircraft. Argentine aircraft certainly were less capable than the British Harriers, but the Argentine military possessed the ability to overwhelm British air defenses by sheer weight of numbers. Employing the principle of mass articulated earlier in AFM 1-1, Argentine aircraft in large coordinated attacks could concentrate enormous striking power against the carriers. Additional fighters from Port Stanley would provide cover against the airborne Harriers; with shorter flight

distances, they would have the capability to engage in extended aerial combat while the strike aircraft continued on to their targets. With a successful Argentine air operation to destroy the carriers, it is highly probable that the British would be unwilling or unable to go ashore.

Nevertheless, the contingency also would have to consider the second phase of operations. Recognizing that ground forces ashore posed the greatest threat in this phase, the operational commander would plan a defense in depth that forced the British to reach an early culminating point prior to capturing Port Stanley. Again, resourcing decisions would be made to support this phase of operations by improving the logistics situation of the troops based on the islands. Consolidating forces on East Falklands would improve the tactical disposition of the Argentine Army; additional deliveries of artillery and helicopters would allow improved firepower and mobility in the defense. With effective air and artillery support, defensible terrain, and a numerical force advantage, the Argentine ground units could have halted a British advance and successfully defended the port. Continuing to anticipate the future, the operational commander also would prepare a "sequel" to this successful defense in case a negotiated end to the war was not forthcoming. While diplomatic solutions might end the war, the operational artist would never rely on such solutions to resolve combat operations within his theater.

Had the military leadership of Argentina understood key aspects of operational art, the Falklands War might have ended differently. Clearly our paradigm provided some important insights that could have led to operational success. One final question remains, should Admiral Lombardo have continued as the operational commander in the South

Atlantic or did an air force general have a better chance of successfully planning and executing this campaign?

Making the Air Force Case

Although the Argentine Navy withdrew early in the conflict, Admiral Lombardo remained responsible for the overall direction of Argentine military actions within the theater of operations. However, as the military situation degenerated, his ability to coordinate the defense of the islands also declined. Hastings and Jenkins observed, "... as the war situation worsened, inter-service cooperation deteriorated. The army and air force became increasingly reluctant to accept direction of the war effort from a naval officer, when the navy's ships lay impotent in their ports." Throughout the course of the war, the air attacks against the British task force were characterized by a lack of unity of effort. Despite the presence of a single, operational commander with full authority for combat operations, the army, navy, and air force often fought in isolation rather than united towards a common goal. Apart from the obvious lack of naval participation in the fighting, the greatest deficiencies were apparent in the integration of Argentine ground forces with the air effort. Lombardo and his land component commander, General Menendez, missed a key opportunity when they failed to coordinate an aggressive ground defense of the islands with the early success of air attacks against the landings at San Carlos. Even as late as the 8th of June, it was possible for Menendez to initiate a viable defense of his area of responsibility by aggressively attacking the British landings at Fitzroy and Bluff Cove as Argentine air attacks struck the landing ships Tristan and Galahad.

While it is apparent Lombardo failed in his capacity as an operational commander/artist, it is doubtful the Air Force's General

Lami Dozo would have done better. Consistently, he argued against improving the airfield at Port Stanley, claiming that lengthening the strip was physically impossible.<72> We have seen already that the British proved his assumption to be incorrect; they upgraded the airfield for use by F-4 Phantoms within a matter of weeks following the end of the war. Furthermore, Lami Dozo's position within the junta was subordinate to both Anaya and Galtieri; in reality, he probably lacked the political clout to take over the fight from Argentina's powerful naval constituency.<73> Argentina did not need a political-military strategist such as Lami Dozo to direct Operation ROSARIO to a successful conclusion. It needed a military officer with the understanding of operational art essential to designing a successful campaign plan as well as the tactical expertise necessary to carry it out.

Selecting an officer capable of fulfilling this key role hinges on the issue of friendly centers of gravity. With the Navy's withdrawal from the war, Argentina's air arm represented its greatest source of strength, the center of gravity for a critical phase of the campaign. Who better to direct key air operations than an air force officer who has spent his career becoming an expert in combat aviation. If air power represents the operational strength of his forces, the commander must understand the proper use of specific aerospace weapons systems to accomplish tactical objectives. His expertise as a tactician is as important to the success of his combat operations as his skill as an operational artist. In this case, an air force officer, imbued with the principles of air power and strengthened by an in depth knowledge of the operational level of war, would be the most capable of executing a successful campaign for the Argentines.

Selection should not ignore the fact that the center of gravity might shift to Argentine ground forces if the campaign continued into its second phase. Should the operational commander then change if the center of gravity shifts? Probably not, changing command structure in the middle of combat operations might threaten the very success of the campaign. Certainly it is possible for a new commander to take charge of combat operations; however, lacking the same viewpoint and insights of the original "author", he might make poor decisions inconsistent with the previous campaign design. Assuming the present commander is not incompetent, a better solution would be to retain the air force officer as operational commander/artist and reinforce his position with a strong ground component commander who understands the critical importance of his ground actions to the overall success of the campaign. Even as the center of gravity changed, air operations would continue to be of decisive importance to the overall success of the campaign and an air force commander would be tremendously useful.

Given the importance of air operations and the detailed involvement of air forces in the campaign, an Argentine Air Force officer might have overcome the interservice rivalries that subsequently threatened the success of combat operations in the war. In the case of Argentina's participation in the Falklands War, the success of air attacks against the British aircraft carriers probably would have precluded any attempt by the task force to land troops ashore. Hence, the situation required an officer knowledgeable of air operations who could successfully prosecute the campaign to destroy the carriers, but also redirect his forces to stop the landings if they still took place in a later phase. Had such a visionary officer been placed in command of Operation

ROSARIO, he would have coordinated the efforts of all Argentine combat forces towards a common goal. Synchronized by this unity of effort, the outcome of the campaign and the war itself might have been altered significantly. Unfortunately for Argentina, no officer with the skills and abilities of an operational artist was present to command in this tragic conflict over an isolated, barren group of islands.

Considering U.S. Operations

Our theoretical paradigm and its application to operations in the South Atlantic leads us to the conclusion that the nature of a campaign's friendly center of gravity should dictate the selection of the theater commander. However the selection process becomes more difficult if the center of gravity shifts from phase to phase, as in the case of the Falklands War. In such instances, military leaders must attempt to recognize the key phases of the campaign and make an intelligent decision based on the requirement for a competent commander with both operational and tactical expertise.

In the case of U.S. military operations, the traditional approach to selecting a theater commander seems to have avoided the use of Air Force general officers. Certainly there have been exceptions; for example, during the Vietnam War, an Air Force officer was placed in overall command of the raid on Son Tay Prison, a major operation to rescue American prisoners of war.<74> Today, Air Force generals command two unified commands, Space Command and Transportation Command; however, neither is a combat command functioning at the operational level. In reality, the role of an Air Force officer as commander of a theater of operations seldom has been considered. Two concepts seem to account for this failure. The first is the idea that air forces cannot hold ground; as a consequence, the thought further evolves into a concept that air

forces cannot have decisive impact on the battlefield. This leads to a second concept that air forces must be subordinate to ground forces since air power merely complements or supplements the decisiveness of ground combat units. This thinking ignores the importance of centers of gravity with respect to fighting at the operational level. The experience of the Falklands War has shown that air forces can represent a center of gravity and, under such circumstances, an air force officer may be the most qualified person to function as the theater commander. Does this concept apply to U.S. military operations? Is it possible for America to encounter situations similar to the Falklands crisis?

Despite our preoccupation with Western Europe, America's most recent military actions have been contingency operations such as the mission to rescue hostages in Iran, the Marine deployment to Lebanon, and Operation URGENT FURY in Grenada. U.S. Central Command (CENTCOM) is an entire unified command preparing for a contingency, the possible employment of U.S. military forces to preserve American interests in Southwest Asia. CENTCOM provides us with an excellent example of a situation where air power might represent the friendly center of gravity for a campaign in Southwest Asia.

As part of its mission statement, CENTCOM acknowledges the fact that, "... within the context of a global strategy and finite available forces, the command could well be a secondary theater until other resources are brought to bear." Since there is no large American force presence within the theater in peacetime, large scale naval operations will be necessary to introduce U.S. forces into the area. However, in the context of a global conflict, naval forces probably would represent a center of gravity for only the first phase of operations; once American forces were ashore, air and ground units would

constitute the bulk of our combat power in the theater while naval units continued to operate "in support of" theater operations. Unfortunately, CENTCOM's current force list includes only three U.S. Army divisions and one Marine division.<76> Assuming in a global conflict that other resources would not be "brought to bear" in a rapid fashion, these forces probably are sufficient to maintain lodgements but lack the ability to conduct operational maneuver to affect a campaign decisively. Facing a situation similar to that encountered by the Argentine military in the Falklands, U.S. air forces would represent the friendly center of gravity within the theater, the source of strength and power for American military operations in Southwest Asia. The recent Ikle Commission report, Discriminate Deterrence, recognized in this situation that, "... the defense will depend critically on our having substantial air power in the region... American air power would in fact present a formidable threat to the Soviet troops invading a Gulf state..."<77> Included in the "mass" that represents this air center of gravity would be the nine tactical fighter wings that are part of CENTCOM's force list, the air defense brigade that assists in the defensive counterair battle for control of friendly airspace, and the transport aircraft providing aerial resupply within the theater--all assets that normally are under control of the senior Air Force general in the theater, the air component commander.<78>

Under this scenario, a possible solution would be for the Commander-in-Chief, CENTCOM, to establish a theater of operations with his air component commander as the operational commander of the area. While ground forces must be present to retain possession of key terrain, the theater commander would develop a campaign plan designed to use his friendly center of gravity to engage enemy forces decisively. This plan

would include a counterair battle for offensive and defensive air superiority, an interdiction battle to wear down enemy ground forces attempting to move into the theater, and a close air support battle to provide air support for friendly ground troops. Seeking to mass theater air forces for decisive results, the operational commander would plan major air operations against key enemy units representing the enemy's center of gravity. Ground operations under the land component commander would not be ignored but synchronized and coordinated to support the overall objectives of the campaign. Operational success within the theater commander's area of responsibility would achieve strategic military objectives specified by the CENTCOM Commander-in-Chief.

SECTION V - CONCLUSIONS AND IMPLICATIONS FOR U.S. DOCTRINE

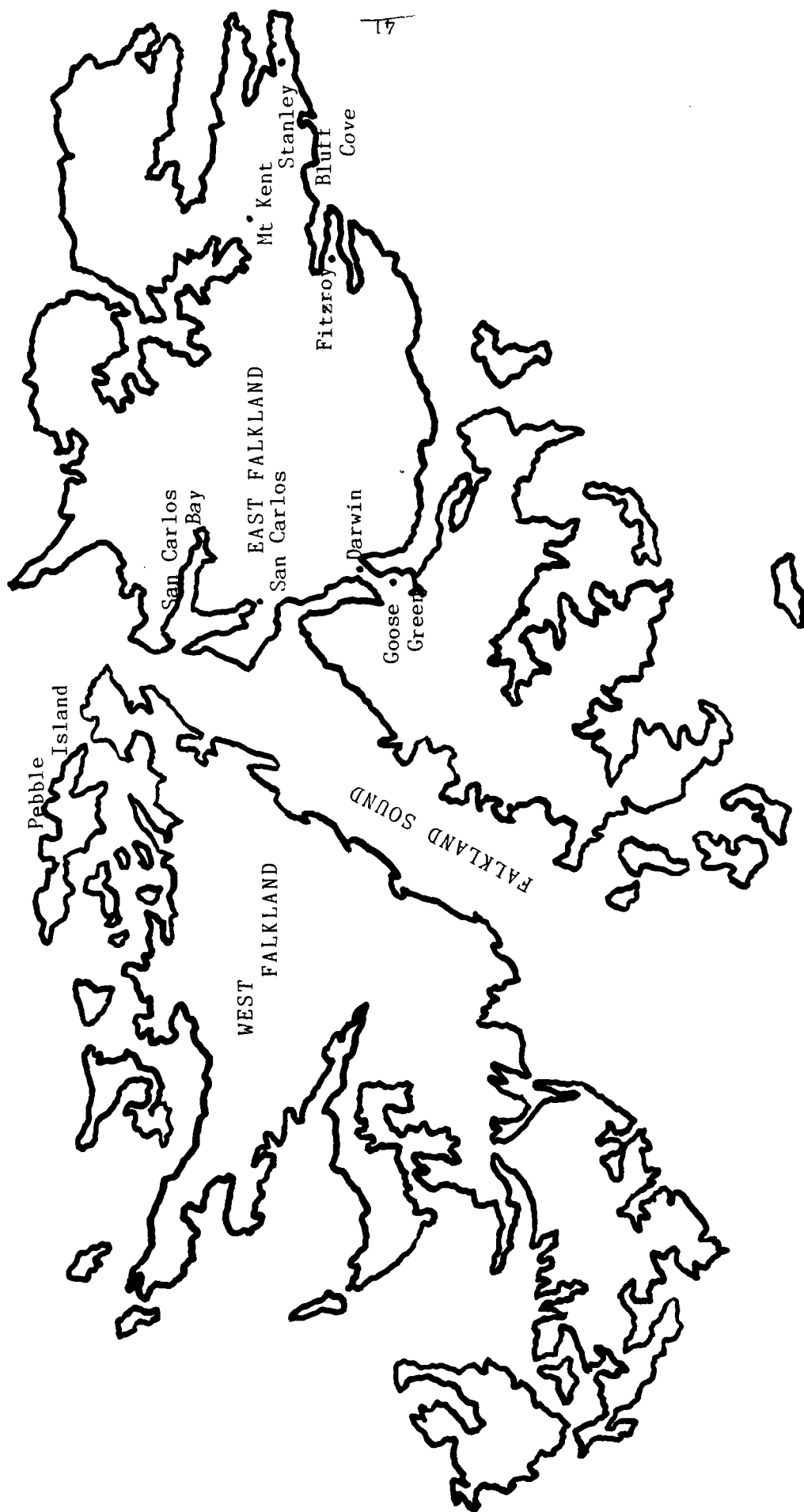
While this scenario clearly represents a unique situation, it is one example that supports the use of Air Force officers as operational commanders. In a broader context, the paradigm we have developed challenges the traditional views of how to use combat forces and the structuring of theater commands. Rather than simply assuming the limited nature of individual service components, military leaders should consider the overall employment of combat power within the context of an operational campaign. Determining a desired "end state" and then finding a way to achieve that state requires commanders to search for creative solutions to the employment of military force. Furthermore, it requires an understanding of American military capabilities that goes well beyond current initiatives in search of "jointness".

In particular, the ability of U.S. Air Force officers to participate in this new challenge requires some changes in Air Force

training and doctrine. To have officers with the ability to function as theater commanders, Air Force training must develop the operational skills of its officer corps. Besides being experts in the art of employing air power, officers must be trained in the skills of operational artists. Such training requires instruction in the theory and conduct of war, the military capabilities of sister services, and the logistics requirements of fighting at the operational level. Air Force doctrine also needs to be modified to incorporate the concept of operational art and an understanding of the operational level of war. Current doctrinal manuals that discuss the role of counterair campaigns and interdiction campaigns merely cloud the fact that air operations support an overall campaign and are not done in isolation. A campaign comprises a variety of combat actions to include battles and major operations. Air operations need to be redefined to illustrate better their relationship to the overall campaign; for example, use of the terms counterair battle and interdiction battle rather than counterair campaign and interdiction campaign. Such terminology makes it clear that air operations are battles to achieve campaign objectives in the same sense as ground operations.

By changing Air Force doctrine to support more completely the concept of campaigning, military commanders will evaluate air power within the context of winning a campaign rather than as an isolated combat element that serves only limited purposes. By becoming experts in operational art, Air Force officers will develop the credibility to function at the operational level both as "concerned" participants and as operational commanders. The overall capabilities of American military forces can be improved dramatically by the Air Force's fuller understanding of the operational level of war.

SOUTH ATLANTIC OCEAN



APPENDIX A - Map of the Falklands

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ENDNOTES

1. Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1976), p.87.
2. Carl von Clausewitz, Two Letters On Strategy, edited and translated by Peter Paret and Daniel Moran (Carlisle Barracks, Pennsylvania: Army War College Foundation Inc., 1984), p.9.
3. Jacob W. Kipp, Mass, Mobility, and the Red Army's Road to Operational Art, 1918-1936 (Fort Leavenworth, Kansas: U.S. Army Combined Arms Center, 1987), p.5.
4. Headquarters, Department of the Army, Field Manual 100-5, Operations (Washington, D.C.: U.S. Government Printing Office, 1986), p.27.
5. Ibid., p.9.
6. Ibid., p.10.
7. Ibid., pp.9-10.
8. Ibid., p.10.
9. Ibid., p.10.
10. Ibid., p.29.
11. Ibid., p.10.
12. Ibid., p.29.
13. Clausewitz, On War, p.204.
14. Clausewitz, On War, p.485.
15. Clausewitz, On War, pp.595-596.
16. Peter Paret, ed., Makers of Modern Strategy (Princeton, New Jersey: Princeton University Press, 1986), p.457.
17. Headquarters, Department of the Air Force, Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force (Washington, D.C.: U.S. Government Printing Office, 1984), p.2-7.
18. FM 100-5, pp.30-31.
19. Ibid., p.12.
20. Ibid., p.181.

21. Max Hastings and Simon Jenkins, The Battle for the Falklands (New York: W.W. Norton and Company, Inc., 1983), p.1.
22. Bryan Hodgson, "The Falkland Islands--Life After the War," National Geographic 173 (March 1988), pp.401-402.
23. Ibid., p.405.
24. Hastings and Jenkins, p.15.
25. Ibid.
26. Paul Eddy and Magus Linklater, eds., War in the Falklands (New York: Harper and Row Publishing, 1982), pp.64-65.
27. Ibid., p.51.
28. Bruce W. Watson and Peter M. Dunn, Military Lessons of the Falkland Islands War (Boulder, Colorado: Westview Press, 1984), pp.135-136.
29. Eddy and Linklater, p.69.
30. Hastings and Jenkins, p.48.
31. Ibid.
32. Harry D. Train, II, "An Analysis of the Falkland/Malvinas Islands Campaign," Naval War College Review 1 (Winter 1988), p.37.
33. Robert L. Scheina, "The Malvinas Campaign," U.S. Naval Institute Proceedings 109 (May 1983), p.100.
34. Ibid., pp.102-103.
35. Train, pp.39-40.
36. Watson and Dunn, p.140.
37. David Fairhall, "Falklands: Frankness and Diplomacy," Defense Week 22 (26 April 1982), p.9.
38. George Russell, "Now, Alas, The Guns of May," Time 119 (10 May 1982), p.25.
39. Ibid.
40. Jeffrey L. Ethell and Alfred Price, Air War South Atlantic (New York: MacMillan Publishing Company, 1983), p.68.
41. Watson and Dunn, p.125.
42. C.W. Koburger, Jr., "The Falklands: Lessons in Modern Naval Warfare," Navy International 88 (January 1983), p.7.

43. Scheina, p.105.
44. Ibid.
45. Watson and Dunn, p.149.
46. Scheina, p.105.
47. Train, pp.38-39.
48. Scheina, p.107.
49. Watson and Dunn, p.151.
50. Train, pp.41-42.
51. Watson and Dunn, pp.156-157.
52. Ethell and Price, pp.235-236.
53. Watson and Dunn, p.157.
54. Ibid., pp.157-159.
55. Train, pp.46-47.
56. Ibid., pp.48-49.
57. Ethell and Price, p.194.
58. Watson and Dunn, p.163-164.
59. Hastings and Jenkins, p.316.
60. Ethell and Price, pp.246-247.
61. John Nott, "The Falklands Campaign," U.S. Naval Institute Proceedings 109 (May 1983), p.130.
62. Gregory R. Copley, "How Argentina's Air Force Fought in the South Atlantic War," Defense and Foreign Affairs 10 (October 1982), p.28.
63. Ethell and Price, p.223.
64. Ibid.
65. Ibid., pp.234-242.
66. Ibid., p.221.
67. Copley, p.11.

68. Lawrence L. Izzo, "The Center of Gravity Is Not An Achilles Heel," Military Review 1 (January 1988), p.76.

69. Ibid.

70. Hastings and Jenkins, p.323.

71. Ibid., p.218.

72. Train, p.39.

73. James R. McDonough, "War in the Falklands: The Use and Disuse of Military Theory," Unpublished Monograph for the School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 1987, p.18.

74. Richard A. Gabriel, Military Incompetence (New York: Hill and Wang, 1985), p.42.

75. George B. Crist, "Bone, Sinew, and Muscle For Regional Defense," Defense 87 (November/December 1987), p..1.

76. Jeffrey Record, "The U.S. Central Command: Toward What Purpose?" Strategic Review (Spring 1986), p.10.

77. Report of the Commission On Integrated Long-Term Strategy, Discriminate Deterrence (Washington, D.C.: U.S. Government Printing Office, 1988), p.25.

78. Record, p.10.

BIBLIOGRAPHY

BOOKS

- Bishop, Patrick and Witherow, John. The Winter War. New York: Quartet Books, 1983.
- Calvert, Peter. The Falklands War. New York: St. Martin's Press, 1982.
- Cardwell, Thomas A., III. Air-Land Combat: An Organization for Joint Warfare. Maxwell Air Force Base, Alabama: Air University Press, 1986.
- Clausewitz, Carl von. On War. Edited and Translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.
- Clausewitz, Carl von. Two Letters On Strategy. Edited and Translated by Peter Paret and Daniel Moran. Carlisle Barracks, Pennsylvania: Army War College Foundation, Inc., 1984.
- Eddy, Paul and Linklater, Magus, eds. War in the Falklands. New York: Harper and Row Publishing, 1982.
- Ethell, Jeffrey L. and Price, Alfred. Air War South Atlantic. New York: MacMillan Publishing Company, 1983.
- Gabriel, Richard A. Military Incompetence. New York: Hill and Wang, 1985.
- Hastings, Max and Jenkins, Simon. The Battle for the Falklands. New York: W.W. Norton and Company, Inc., 1983.
- Kipp, Jacob W. Mass, Mobility, and the Red Army's Road To Operational Art, 1918-1936. Fort Leavenworth, Kansas: U.S. Army Combined Arms Center, 1987.
- Paret, Peter, ed. Makers of Modern Strategy. Princeton, New Jersey: Princeton University Press, 1986.
- Watson, Bruce W. and Dunn, Peter M. Military Lessons of the Falkland Islands War. Boulder, Colorado: Westview Press, 1984.

GOVERNMENT PUBLICATIONS AND MANUALS

- Headquarters, Department of the Air Force. Air Force Manual 1-1. Basic Aerospace Doctrine of the United States Air Force. Washington, D.C.: U.S. Government Printing Office, 1984.

Headquarters, Department of the Army. Field Manual 100-5. Operations.
Washington, D.C.: U.S. Government Printing Office, 1986.

Report of the Commission on Integrated Long-Term Strategy. Discriminate Deterrence. Washington, D.C.: U.S. Government Printing Office, 1988.

The Joint Chiefs of Staff. Unified Action Armed Forces, JCS Pub. 2.
Washington, D.C.: U.S. Government Printing Office, 1974.

ARTICLES

Atkeson, Edward B. "The Operational Level of War." Military Review 3
(March 1987): 28-36.

Cardwell, Thomas A., III. "Managing Theater Air Assets." Military Review 5 (May 1983): 40-45.

Copley, Gregory R. "How Argentina's Air Force Fought in the South Atlantic War." Defense and Foreign Affairs. 10 (October 1982): 10+.

Crist, George B. "Bone, Sinew, and Muscle For Regional Defense." Defense 87 (November/December 1987): 36-42.

Dar, E.H. "Strategy in the Falklands War." U.S. Naval Institute Proceedings 109 (March 1983): 132-134.

Devlin, Michael R. and Shadid, Theodore M. "Joint Command--The Operational Level of War." Field Artillery Journal 2 (March-April 1985): 36-39.

Donnelly, Charles L., Jr. "A Theater-Level View of Air Power." Airpower Journal (Summer 1987): 3-8.

Fairhall, David. "Falklands: Frankness and Diplomacy." Defense Week 22 (26 April 1982): 9.

Gerner, Mark A. "Leadership at the Operational Level." Military Review 3 (March 1987): 26-35.

Hodgson, Bryan. "The Falkland Islands--Life After the War." National Geographic 173 (March 1988): 390-411.

Holder, L.D. "A New Day for Operational Art." Army 3 (March 1985): 22-32.

Iungerich, Raphael. "U.S. Rapid Deployment Forces--USCENTCOM--What Is It? Can It Do the Job?" Armed Forces Journal International (October 1984): 88-106.

Izzo, Lawrence L. "The Center of Gravity Is Not An Achilles Heel." Military Review 1 (January 1988): 72-83.

- Koburger, C.W., Jr. "The Falklands: Lessons in Modern Naval Warfare." Navy International 88 (January 1983): 6-14.
- Nott, John. "The Falklands Campaign." U.S. Naval Institute Proceedings 109 (May 1983): 118-139.
- Patterson, J. David. "The C-17 in an Iran Scenario: A Perspective Beyond 66-Million Ton-Miles per Day." Armed Forces Journal International (January 1987): 42-48.
- Record, Jeffrey. "The U.S. Central Command: Toward What Purpose?" Strategic Review (Spring 1986): 44-50.
- Russell, George. "Now, Alas, The Guns of May." Time 119 (10 May 1982): 18-28.
- Scheina, Robert L. "The Malvinas Campaign." U.S. Naval Institute Proceedings 109 (May 1983): 98-117.
- Summers, Harry G., Jr. "Strategic Lessons Learned: The Falklands Campaign." Art of War Quarterly (September 1983): 91-112.
- Train, Harry D., II. "An Analysis of the Falkland/Malvinas Islands Campaign." Naval War College Review 1 (Winter 1988): 33-50.
- Trotter, Neville. "The Falklands Campaign: Command and Logistics." Armed Forces Journal International (June 1983): 32-41.

UNPUBLISHED MATERIAL

- McDonough, James R. "War in the Falklands: The Use and Disuse of Military Theory." Unpublished Monograph for the School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 1987.
- Privratsky, Kenneth L. "British Combat Service Support on East Falkland: Considerations for Sustaining Tactical Operations in Remote Areas." Unpublished Monograph for the School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, Kansas, 1985.

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